OPERATING INSTRUCTIONS



X-09^{TM}

Type 1F

HIGH SECURITY ELECTRONIC LOCK

TABLE OF CONTENTS

For Technical Support
Call: 1-800-950-4744

The X-09 uses sophisticated computer security and makes dialing much easier than that of traditional combination locks. The microprocessor in the lock recognizes a number as part of a combination when you change dialing direction. (See the section on Dialing the X-09.)

Note: *The lock is shipped preset to operate in the Single Combination Mode with a **Default Factory Combination** of **50-25-50.***

LOCK ON BACK COVER

The **L**ock **O**n **B**ack **C**over (**LOBC**) feature provides a locking mechanism that locks the back cover in place after installation. The design is such that the back cover cannot be removed without visible damage unless the combination is known, regardless of whether the lock is locked or unlocked.

Note: ***Because of the LOBC feature, it is not an easy task to remove the back cover to read the lock serial number after the lock is installed. Since you may need the serial number of the lock to reset it if the combination is lost or forgotten, it is important that you keep a record of the lock serial number in a secure place. If you do not have the serial number, follow the procedure below to remove the back cover and retrieve the serial number.***

To Remove the Lock on Back Cover:

1. Dial the combination(s) to open the lock and then retract the bolt.
2. Release the container locking bolts.
3. Open the container.
4. Remove the dust cover plate.
5. Locate the lock on back cover pin on the back cover of the lock case. (See Figure 1.)
6. Turn the dial to the **left** to extend the bolt. Do not close the container.
7. Dial the combination(s) to open the lock.
8. Before turning the dial to retract the bolt, pull out on the unlocking button.
9. While holding the button out, turn the dial to the **right** to retract the bolt to the unlocked position.
10. Remove the back cover screws.
11. Remove the back cover assembly.
12. Look at the label on the large capacitor on the system card to get the lock serial number. (See Figure 2.)

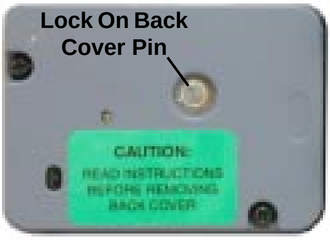


Figure 1 - Lock On Back Cover

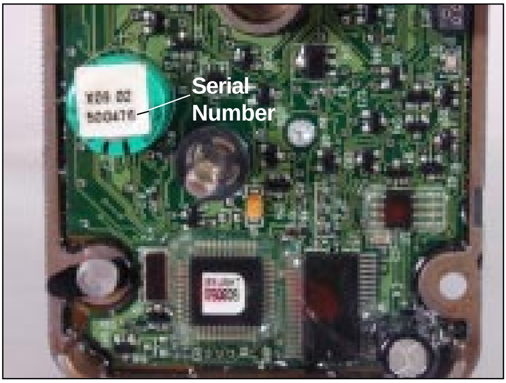


Figure 2 - Serial # on Label on Capacitor

DIALING THE X-09

DIALING METHODS

The user should dial with complete, full wrist turns. Stopping to regrip produces pauses in dialing activity. This helps the X-09 distinguish between human and robotic dialers.

Note: *The viewing angle of the LCD is restricted from either side as a security feature of the lock. This feature restricts viewing of combination dialing by the casual observer. The display may also appear slightly more dim than previous versions of the X-xx lock.*

TO POWER THE LOCK

You should dial **to the** left **(CounterClockWise) to "**power**" the lock unless otherwise instructed for a specific operation. It usually requires 5-10 turns of the dial to generate sufficient power for lock operations.** The lock is considered to be "powered" as soon as something (number, letter, symbol) appears on the display.

Note: *While the lock is powered, you will notice that the intensity level of the LCD will vary. The display may appear to become brighter or more dim at different points in operation. The variations in the display occur due to a security feature of the lock and should not be of concern to the user.*

When you dial to power the lock, it will first display any error conditions that exist on the lock.

If you continue to dial left and if the number of consecutive unsuccessful attempts is three or more, the unsuccessful attempts count will be displayed along with a lightning bolt. You must slow down or stop dialing to pause and view the count. The count will disappear when you dial left to resume operations or when the lock powers down.

DIALING A COMBINATION

The X-09 recognizes a number as being part of a combination when you stop dialing on that number and then reverse dialing directions. When dialing a combination, you will **dial left for the 1st two digits of the combination**, **dial right for the second two digits**, and then **dial left again for the last two digits**. When dialing to the left, the numbers will be displayed in an increasing fashion as you dial. When dialing to the right, the numbers will be displayed in a decreasing fashion.

Note: *If at any time the dial remains stationary for more than 40 seconds, the lock will power down (LCD will go blank), requiring the operator to redial the entire combination.*

Once the combination has been dialed correctly, you must dial briskly to the right to get an **OP** (**OP**en right) display and to retract the bolt.

Note: *If an incorrect combination is dialed or if the elapsed dialing time of the combination is less than 10 seconds, a lightning bolt will appear when you dial right to retract the bolt.*

If You Pass Your Target Number When Dialing:

Example A: Target Number = 25.

If you pass your target number by 4 or more, continue dialing until you reach the target number again.

Example B: Target Number = 25.

If you pass the target number by no more than 3 numbers, you may continue dialing until you reach the target number as in Example A.

An **alternative method** is to reverse direction **slowly** and the display will “jump back” 4 numbers. Then you should dial **slowly** in the original dialing direction for this target number until you reach the correct number.

Redial Entire Combination If:

A. The screen goes blank before the lock bolt is retracted.

B. A lightning bolt is displayed.

Caution: ***An X-09 lock will initiate a timed lockout of 3 minutes when ten consecutive wrong combinations have been dialed. Each additional unsuccessful attempt to open the lock will initiate another timed lockout. If the number of consecutive unsuccessful attempts reaches fifteen, the timed lockout increases to 4 minutes. The lockout period is only timed while the lock is powered. To keep the lock powered until the timed lockout has expired, turn the dial every 30 seconds. A successful opening resets the error count.***

OPEN AND CLOSE THE X-09 (FACTORY COMBINATION)

If you have not read the section on “Dialing the X-09”, it is important that you do so before proceeding.

Note: *The lock is shipped preset to operate in the Single Combination Mode with a **Default Factory Combination** of **50-25-50.***

TO OPEN THE LOCK (using the Factory Combination):

CW=ClockWise; CCW=CounterClockWise

1. Dial **left** (CCW) until lock is “powered”. The lock is considered “powered” when numbers appear on the LCD display screen.

2. Continue dialing **left** (CCW) to the first number of the factory combination (50). Stop on 50 and pause briefly.

3. Dial **right** (CW) to the second number of the factory combination (25). Stop on 25 and pause briefly.

4. Dial **left** (CCW) to the third number in the factory combination (50). Stop on 50 and pause briefly.

5. Dial **right** (CW). After **OP** with a right arrow (**OP**en right) is displayed, continue dialing to the right to retract the lock bolt.

Note: *If at any time the dial remains stationary for more than 40 seconds, the lock will power down (LCD will go blank), requiring the operator to redial the entire combination.*

TO CLOSE THE LOCK:

1. Turn Dial to the **left** (CCW) a minimum of one complete revolution to extend the bolt.
2. Turn Dial to the right (CW) a minimum of one complete revolution to ensure that it is locked.

Note: *The Dial should turn freely in either direction without catching or binding when the bolt is extended and the lock is closed.*

Practice opening and closing the lock several times with the preset factory combination before you set a new combination. When you feel comfortable opening the X-09 using the preset factory combination, you are ready to put the lock into operation.

Setting up the X-09 lock for operation involves both the operating mode and the combination(s).

Note: ***The lock is shipped preset to operate in the Single Combination Mode with a factory combination of 50-25-50.***

Before you can set a new combination, you must select and set a mode of operation. The X-09 has three modes of operation:

Single Combination Mode: The X-09 will open when one three-number combination is successfully dialed.

Dual Combination Mode: Two separate combinations are required to open the X-09. Either combination may be dialed first; however, the operator must begin entering the second combination within 40 seconds of completing the first combination.

Supervisory/Subordinate Mode or Super/Sub Mode: Two separate combinations are required to open the lock, with the Supervisory Combination controlling access of the Subordinate Combination. The Supervisory Combination must be entered first to **U**n**L**ock (**UL**) the lock. Once the Supervisory Combination has been entered, the Subordinate Combination can be used to open the lock at any time during this "unlocked" state. The Supervisory Combination can be entered again to disable lock access - **L**ock **U**p (**LU**). In this state the Subordinate Combination will no longer open the lock.

SET OPERATING MODE AND CHANGE COMBINATIONS

Use the Change Key (Figure 2) provided with your X-09 to set the desired operating mode and combinations. If at any time during the process you see the Key and Lightning Bolt symbols displayed, stop the sequence and return to Step 4. If at any time after you start the change key process, you see only a Lightning Bolt symbol displayed, stop the sequence, reinsert the change key, and return to Step 4.

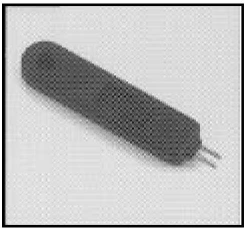


Fig. 2 - Change Key

Note: ***The lock serial number may be used to complete this process if the current combination has been lost or forgotten and if you can gain access to the back of the lock.*** *Using the serial number for this procedure will not open the lock. It will only allow you to set the new operating mode and combination(s). When using the serial number to change the combination, you must first create an error by dialing an incorrect combination.*

If you have not read the section on "Dialing the X-09" and "Opening the X-09 (Factory Combination)", it is important that you do so before proceeding.

Note: *Use the preset* ***factory combination*** *of* ***50-25-50*** *to open the lock the* first time. *If the container is already open, you may skip Step 1.*

1. Open the lock by dialing the current combination(s) and retracting the bolt. Then remove the container dust cover to gain access to the change key holes on the back of the lock.

If you have lost or forgotten the combination(s) and are using the serial number method to complete this process, simply dial an incorrect combination to get a lightning bolt display. *The error must be created before inserting the Change Key, and the Change Key must be inserted while the lightning bolt is displayed. See next step.*

2. Release the container locking bolts if necessary. (Different containers will have different release mechanisms.)
3. Insert the Change Key into the change key holes on the back of the lock. (See Figure 3.)

Note: *Hold your thumb on the change key retractor while inserting the Change Key to ensure that the pins enter the lock and are not being pushed back into the Change Key.*

4. Dial **left** (CCW) until the Change Key appears in the upper right hand corner of the display.



Figure 3 - Insert Change Key

Note: *The lock will never open when the Change Key symbol is displayed.*

5. Dial the current combination or combinations, example 50-25-50, as if dialing the combination to open the lock. If currently operating in Supervisory/Subordinate mode, enter the Supervisor's combination first.

Note: ***If you have lost or forgotten the current combination(s) and are using the serial number method to complete this process, enter the six-digit serial number at this time*** *just as you would enter a six-digit combination.*

6. Dial **right** (CW) until the symbol SL (for Select Mode) is displayed.
7. Now dial **left** (CCW) to select the mode of operation:
   01 — for Single Combination Mode
   02 — for Dual Combination Mode
   03 — for Supervisory/Subordinate Mode
   Stop on the number of your selection and pause briefly.

Caution: *Do not use the "back up" method of dialing as described in Example B on page 3 when dialing to select the mode.*

If Selection = 01, Single Combination Mode:

8. Dial **right** (CW) until the symbol **EC** (**E**nter **C**ombination) appears.
9. Dial the **new combination** as if dialing a combination to open the lock; i.e., **left** (CCW) to dial the first number, **right** (CW) to dial the second number, **left** (CCW) to dial the third number.
   EXAMPLE: Set Combination to 30-60-90
   Dial **left** to the first number, **30**. Stop.
   Dial **right** to second number, **60**. Stop.
   Dial **left** to third number, **90**. Stop.
10. Dial **right** (CW) briskly. The new combination will be displayed two times, two digits at a time, followed by **PO** (**P**ull **O**ut Change Key).

Note: *If the correct combination is not displayed, you may pull out the change key and the lock will allow you to reset the combination.* ***You must pull out the change key while the display is still flashing.*** *When* ***EC*** *appears, insert the change key again and dial the desired combination.*

11. Pull out the Change Key. The Change Key symbol will disappear and **CC** (**C**onfirm **C**ombination) will appear.
12. Dial the new combination once again for confirmation.
13. Dial **right** (CW). After **OP** with a right arrow (**OP**en right) is displayed, continue dialing to the right to retract the lock bolt.
    The new combination is now set.

If Selection = 02 or 03, Dual Combination or Super/Sub Mode:

In Dual Combination Mode: Either of the two combinations can be entered first and the combinations may be the same as each other.

In Supervisory/Subordinate Mode: Supervisory Combination **must** be entered first, and the Supervisory and Subordinate Combinations cannot be the same combination.

8. Dial **right** (CW)until the symbol **C1** (enter **C**ombination **1**) appears.
9. Dial the **first new combination** (Supervisory Combination if operating in Super/Sub Mode) as if dialing a combination to open the lock; i.e., **left** (CCW) to dial the first number, **right** (CW) to dial the second number, **left** (CCW) to dial the third number.
   EXAMPLE: Set Combination to 30-60-90
   Dial **left** to the first number, **30**. Stop.
   Dial **right** to second number, **60**. Stop.
   Dial **left** to third number, **90**. Stop.
10. Dial **right** (CW) briskly. The new combination will be displayed two times, two digits at a time. Once the combination has been displayed, the symbol **C2** (Enter **C**ombination **2**) will appear.

Note: *If the correct combination is not displayed, you may pull out the Change Key and the lock will allow you to reset the combination.* ***You must pull out the Change Key while the display is still flashing.*** *When* ***C1*** *appears, insert the Change Key again and dial the desired combination.*

11. Dial the **second new combination** (Subordinate Combination if operating in Super/Sub Mode) as if dialing a combination to open the lock; i.e., **left** (CCW) to dial the first number, **right** (CW) to dial the second number, **left** (CCW) to dial the third number.
    EXAMPLE: Set Combination to 25-50-75
    Dial **left** to the first number, **25**. Stop.
    Dial **right** to second number, **50**. Stop.
    Dial **left** to third number, **75**. Stop.
12. Dial **right** (CW) briskly. The new combination will be displayed two times, two digits at a time, followed by **PO** (**P**ull **O**ut Change Key).

Note: *If the correct combination is not displayed, you may pull out the change key and the lock will allow you to reset the combination.* ***You must pull out the change key while the display is still flashing.*** *When* ***C2*** *appears, insert the change key again and dial the desired combination.*

13. Pull out the Change Key. The Change Key symbol will disappear and **CC** (**C**onfirm **C**ombination(s)) will appear.
14. Dial the **new combinations** once again for confirmation.

Note: *In Dual Combination Mode you may dial either combination first to confirm. In Super/Sub Mode you **must** dial the Supervisory combination first and the Subordinate Combination second as you did when first entering the combinations.*

15. Dial **right** (CW). After **OP** with a right arrow (**OP**en right) is displayed, continue dialing to the right to retract the lock bolt.The new combinations have now been set.

Note: *If you misdial or do not properly finish the Change Key sequence in any way, the X-09 automatically reverts to the previous combination(s). The old combination(s) remain valid until the process is completed successfully.*

Caution: *After you have confirmed the new combination(s), test dial the combination(s)* ***before closing the door or container.***

IF YOU LOCK THE CHANGE KEY IN THE SAFE

If the door of your container is shut and the X-09 is accidentally locked with the Change Key still inserted in the back of the lock, you can recover with the following procedure.

1. Allow the lock to power down. (After 40 seconds, the display will go blank. Wait an additional 2 minutes for full power down.)
2. Dial **right** (CW) until lock is “powered” and the number of successful openings is flashing.

Caution: *Do not continue to dial right once you see the flashing numbers on the display.*

3. Now dial the current combination(s) just as you would to open the lock ; i.e., **left** (CCW) to dial the first number, **right** (CW) to dial the second number, **left** (CCW) to dial the third number.
4. Dial **right** (CW). After **OP** with a right arrow (**OP**en right) is displayed, continue dialing to the right to retract the lock bolt.

You may now restart the procedure to Set the Operating Mode and Change Combination(s).

Note: *You cannot use the serial number in place of the combination for this procedure. The combination must be known.*

If you have not read the section on "Dialing the X-09", it is important that you do so before proceeding.

SINGLE COMBINATION MODE

In this mode the X-09 functions much like a standard combination lock. It will open any time the three-number combination is correctly dialed.

1. Dial **left** (CCW) until lock is "powered".
2. Dial the **combination** in the correct manner to open the lock; i.e., **left** (CCW) to dial the first number, **right** (CW) to dial the second number, **left** (CCW) to dial the third number.
   EXAMPLE: Combination = 30-60-90
   Dial **left** to the first number, **30**. Stop.
   Dial **right** to second number, **60**. Stop.
   Dial **left** to third number, **90**. Stop.
3. Dial **right** (CW). After **OP** with a right arrow (**OP**en right) is displayed, continue dialing to the right to retract the lock bolt.

Note: *If at any time the dial remains stationary for more than 40 seconds, the lock will reset (LCD will go blank) requiring the operator to redial the entire combination.*

DUAL COMBINATION MODE

In this mode, two combinations must be correctly and consecutively entered to open the lock. Either combination may be entered first; however, **the second combination must be started within 40 seconds after the first combination is completed.**

First Operator:

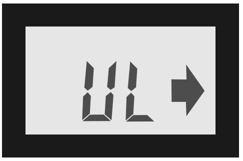
1. Dial **left** (CCW) until lock is "powered".
2. Dial the **first combination** in the correct manner to open the lock; i.e., **left** (CCW) to dial the first number, **right** (CW) to dial the second number, **left** (CCW) to dial the third number.
   EXAMPLE: Combination = 25-50-75
   Dial **left** to first number, 25. Stop.
   Dial **right** to second number, 50. Stop.
   Dial **left** to third number, 75. Stop.
3. Dial to the **right** (CW) until **C2** (enter **C**ombination **2**) is displayed.

Second Operator:

4. Dial the **second combination** in the correct manner to open the lock; i.e., **left** (CCW) to dial the first number, **right** (CW) to dial the second number, **left** (CCW) to dial the third number.
   EXAMPLE: Combination = 30-60-90
   Dial **left** to first number, 30. Stop.
   Dial **right** to second number, 60. Stop.
   Dial **left** to third number, 90. Stop.
5. Dial **right** (CW). After **OP** with a right arrow (**OP**en right) is displayed, continue dialing to the right to retract the lock bolt.

Note: *If at any time the dial remains stationary for more than 40 seconds, the computer will reset (LCD will go blank) requiring the operator to redial the entire combination.*

SUPERVISORY/SUBORDINATE MODE



In this mode, two combinations must be correctly dialed to open the lock. However, it is different from Dual Mode because the Supervisory Combination must only be dialed once to **U**n**L**ock (**UL**) the lock. Once the Supervisory Combination has been entered, the Subordinate Combination can be used to open the lock at any time during this "unlocked" state.

Whenever the Supervisory Combination is redialed, the lock will display **LU** (**L**ocked **U**p), and the Subordinate Combination will no longer open the lock.

To UnLock (UL)

Supervisory Operator:

1. Dial **left** (CCW) until lock is "powered".
2. Dial the **Supervisory Combination** as if dialing a combination to open the lock; i.e., **left** (CCW) to dial the first number, **right** (CW) to dial the second number, **left** (CCW) to dial the third number.
   EXAMPLE: Combination = 25-50-75
   Dial **left** to first number, 25. Stop.
   Dial **right** to second number, 50. Stop.
   Dial **left** to third number, 75. Stop.
3. Dial **right** (CW). **UL** (**U**n**L**ocked) is displayed indicating that the Subordinate Operator can now open the lock using only the Subordinate Combination. The X-09 will now operate as if it were in a single combination mode.

To Open the Lock

Subordinate Operator:

1. Dial **left** (CCW) until lock is "powered".
2. Dial the **Subordinate Combination** in the correct manner to open the lock; i.e., **left** (CCW) to dial the first number, **right** (CW) to dial the second number, **left** (CCW) to dial the third number.
   EXAMPLE: Combination = 30-60-90
   Dial **left** to the first number, **30**. Stop.
   Dial **right** to second number, **60**. Stop.
   Dial **left** to third number, **90**. Stop.
3. Dial **right** (CW). After **OP** with a right arrow (**OP**en right) is displayed, continue dialing to the right to retract the lock bolt.

Note: *If at any time the dial remains stationary for more than 40 seconds, the lock will reset (LCD will go blank) requiring the operator to redial the entire combination.*

To Lock Up (LU)

Supervisory Operator:

1. Dial **left** (CCW) until lock is “powered”.
2. Dial the **Supervisory Combination** as if dialing a combination to open the lock; i.e., **left** (CCW) to dial the first number, **right** (CW) to dial the second number, **left** (CCW) to dial the third number.

   EXAMPLE: Combination = 25-50-75

   Dial **left** to first number, 25. Stop.

   Dial **right** to second number, 50. Stop.

   Dial **left** to third number, 75. Stop.
3. Dial **right** (CW). **LU** (**L**ocked **U**p) will be displayed indicating the lock cannot be opened. The Subordinate Combination will not open the lock again until the Supervisory Combination is redialed to **U**n**L**ock (**UL**) the lock once again.

CORRECT METHOD OF CLOSING/RELOCKING CONTAINER

1. Close the container door.
2. Turn Dial to the **left** (CCW) a minimum of one complete revolution to extend the bolt.
3. Turn Dial to the right (CW) a minimum of one complete revolution to ensure that it is locked.

Note: *The Dial should turn freely in either direction without catching or binding when the bolt is extended and the container is locked.*

AUDIT FEATURES OF THE LOCK

The X-09 lock tracks the number of successful openings for the lifetime of the lock. It also tracks the number of consecutive unsuccessful attempts and will alert you upon lock power up if there have been 3 or more consecutive unsuccessful attempts to open the lock. **The lock bolt must be extended and the lock allowed to power down prior to obtaining an audit count of any type.**

TO CHECK THE NUMBER OF SUCCESSFUL OPENINGS

The number of successful openings is a four digit number that will be displayed two digits at a time. The lock bolt must be extended before starting the operation.

1. Allow the lock to power down. (After 40 seconds, the display will go blank. Wait an additional 2 minutes for full power down.)
2. Dial **continuously** to the **right** (CW) until the LCD display alternately flashes two pairs of numbers. The number with the arrow flashing left represents the first two numbers of the successful openings count. The number with the arrow flashing right represents the last two numbers in the successful openings count.
   Example: A display showing 00 (arrow left) and 15 (arrow right) means the lock has been successfully opened a total of 0015 times.

The number of successful openings will reflect the total number of times the lock has been opened since it was manufactured. When the lock has been opened 9,999 times, the next time that the lock is opened the count will begin again at 0 and continue to increment.

TO CHECK THE NUMBER OF UNSUCCESSFUL ATTEMPTS

The X-09 keeps a record of the number of unsuccessful attempts to open the lock. **This count will only be displayed when there have been three or more consecutive unsuccessful attempts.** The lock bolt must be extended before starting the operation.

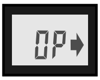
1. Allow the lock to power down. (After 40 seconds, the display will go blank. Wait an additional 2 minutes for full power down.)
2. Dial **left** (CCW) until lock is “powered”. If 3 or more consecutive unsuccessful attempts have occurred, a lightning bolt along with the two digit count will be displayed.

Note: *An X-09 lock will register an error condition and will intitiate a timed lockout of 3 minutes when ten consecutive unsuccessful attempts to open the lock are made. Each additional unsuccessful attempt will initiate another timed lockout. If the number of consecutive unsuccessful attempts reaches fifteen, the timed lockout increases to 4 minutes. The lockout period is only timed while the lock is powered. The unsuccessful attempts count resets to 0 only when the lock is successfully opened. If the number of unsuccessful attempts exceeds 99, the count will remain at 99 until reset.*

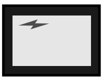
Once the count is displayed, you may continue dialing left to start dialing a combination.



Blank Display
Lock is powered down.



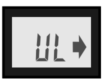
OP
Open Right



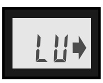
Lightning Bolt
Incorrect Combination Dialed. (When this symbol appears in the upper left corner of the display, dial the correct combination.)



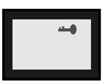
Lightning Bolt with Error Count
Incorrect Combination Dialed xx times. (The error count is only displayed when there have been 3 or more consecutive unsuccessful attempts.)



UL
Unlocked



LU
Lock Up



Key
Change Key Symbol (The Change Key has been inserted and the lock is in Change Combination Mode.)



SL
Select Mode of Operation



EC
Enter Combination



PO
Pull Out Change Key



CC
Confirm **C**ombination or Combination(s)



C1
Enter first **C**ombination



C2
Enter second **C**ombination.

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